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DISCOVERY OF A MAJOR WORKER IN
CAMPONOTUS BRANNERI (MANN), A NEW
 COMBINATION (HYMENOPTERA: FORMICIDAE)

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As entomologist to the Stanford expedition to Brazil, in 1911, W. M. Mann discovered in the environs of Abunã, on the upper Madeira river, Rondônia Territory, several workers of a bizarre-looking Formicine ant, at once distinguished by the peculiar head shape: the occiput is drawn out into a long, narrow neck. Supposing to deal with a species characterized by a strictly monomorphic worker caste, Mann described these specimens as *Dendromyrmex branneri*, but admitting at the same time that it represented a very aberrant form in an otherwise strikingly homogeneous group.

To my knowledge, this species has never since been collected again. So it came as a surprise when I received among ant material recently collected at Humaitá, Amazonas State, Brazil (about 400 km NE of Abunã, further down the Madeira river), by the expedition of the Zoology Department of the "Faculdade de Ciências Médicas e Biológicas de Botucatu, S.P.", led by Dr. Virgílio Pereira da Silva, two workers of the same species associated with the hitherto unknown soldier or major worker. The latter proved that *branneri* is definitely not a *Dendromyrmex* but a true *Camponotus*, representing another of the handful of spectacular species which this genus possesses in the western part of the Amazonas river drainage.

Thanking Dr. Virgílio Pereira da Silva for letting me keep this interesting material, I give in the following a diagnosis of the soldier of *C. branneri*, redescribe the worker, and add a comment on the subgeneric allocation of the present species.

Note on measurements. TL, for total length of body, is the summed length of head with closed mandibles, diagonal length of thorax (see WL), and axial length of petiole and the remainder of the normally expanded abdominal segments; HL, for head length, is the

*Father Kempf died while attending the International Congress of Entomology in Washington, on 20 August 1976. [Editor]

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maximum perpendicular distance between two parallels drawn through the anteriormost and posteriormost point of head capsule in full-face view; HW, for head width, is the maximum width of head in full-face view including the compound eyes whenever they are laterally protruding; IFW, for interfrontal width, is the maximum distance between the outer borders of frontal carinae; SL, for scape length, is the chord length of the antennal scape, excluding the narrowed basal neck and the articular condyle; EyL, for eye length, is the maximum diameter of the compound eyes; WL, for Weber's length of thorax (or trunk), is taken in side-view diagonally from the anterior descending face of pronotum (cervix excluded) to the most posterior point of thorax situated postero-inferiorly on the so-called metasternal angle; HFL, for hind femur length, is the maximum length of the hind femur.

Camponotus branneri (Mann), new combination
(Figs. 1-4)

Dendromyrmex branneri Mann, 1916:488-489, Pl. 6, fig. 47(worker; Brazil, Rondônia Territory: Abunã). Emery, 1925: 173 (catalog). Borgmeier, 1927:161 (catalog). Kempf, 1972: 95 (catalog).

Soldier (undescribed). Measurements in mm: TL 13.0; HL 3.43; HW 2.77; IFW 0.97; EyL 0.61; SL 2.67; WL 3.85; HFL 3.49.

Color ferruginous; mandibles, antennal scapes and gaster darker than rest of body and appendages. Integument basically smooth and shining with the following exceptions: mandibles finely shagreened and opaque on basal half; dorsum of head including clypeus densely punctate and opaque, the sculpture becoming more superficial and rather reticulate-punctate on posterior vertex; occiput, posterior half of sides of head and anterior half of gular surface; occipital corners practically smooth and shining; antennal scape finely shagreened, subopaque, thorax superficially reticulate-punctate to reticulate-striolate on propodeum and mesopleura; femora and tibiae indistinctly and superficially reticulate-striolate; petiole with the anterior and posterior surfaces transversely and the lateral surfaces obliquely striolate; gastric terga and sterna nearly smooth with fading and very superficial transverse striolae. Anterior margin of clypeus, front, vertex, occiput, gular surface of head, thorax, anterior and lateral surfaces of petiole, and gaster with scattered, pale standing hairs which are always shorter than maximum diam-

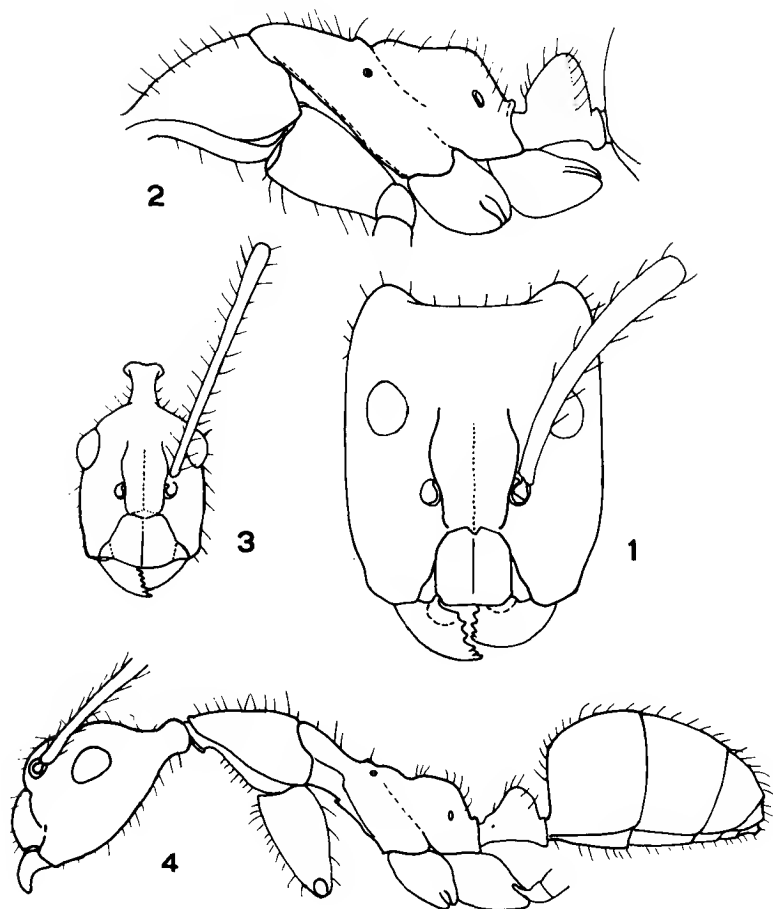
eter of eyes; hairs on scapes and legs evenly scattered, absent on mesial surface of fore femora, somewhat shorter than those of body, mostly oblique; funicular segments with very short and scattered standing hairs. Fine appressed pubescence on mandibles, antennae, sides and gular face of head, sides of pronotum, legs and gaster.

Head as shown in fig. 1. Mandibles with the infero-lateral border carinate, the chewing blade with 6 teeth, the basal tooth small, offset or retracted. Median apron of clypeus gently convex in both directions, with a weak sagittal carina which on the posterior fourth becomes an impressed sulcus. Frontal sulcus faint, fading out before the posterior end of frontal carinae. Antennal scapes feebly compressed and prismatic at basal half. Second funicular segment shorter than first and third. Eyes rather flat. Antennal socket removed from posterior corner of median apron of clypeus by a distance which slightly exceeds its own diameter. Thorax as shown in Fig. 2. Mesothoracic spiracle protuberant. Metanotum dorsally exposed, projecting as a transverse welt. In profile, the depression in front of metanotum and on anterior third of basal face of pronotum is very shallow. Tibiae and first tarsomeres not conspicuously compressed nor broadened. Petiole. (Fig. 2) with the peak transversely submarginate.

Worker. Measurements in mm: TL 8.9-9.0; HL 2.10-2.15; HW 1.33-1.38; IFW 0.54; EyL 0.46; ScL 2.67; WL 3.29; HFL 3.08-3.23.

Color and sculpture as in soldier, but nearly the entire mandibles, the gular surface of head, the drawn-out and necklike occiput, and the fore legs are smooth and shining throughout; reticulate-punctate sculpture on anterior part of dorsum of head more superficial. Pilosity likewise as in soldier, except for the presence of fringing erect hairs on sides of head; hairs on scapes more abundant and more erect; erect hairs present on median stripe of clypeus.

Head as shown in Fig. 3; note the parallel-sided head, slightly constricted in front of convex and protruding compound eyes, and the long, narrow, stalked occiput which is drawn-out in a necklike fashion. Antennal socket removed from posterior corner of median apron of clypeus by a distance which is subequal to its own diameter. Sagittal carina present on clypeus, posteriorly blunt and low, but not impressed as a sulcus. Thorax as in soldier (Fig. 4) but more slender and strongly constricted at level of mesothorax. Both the mesonotum and the anterior third of propodeum have a distinct, saddle-shaped impression. Mesepisternum terminating above in



Camponotus branneri (Mann)

Fig. 1. Soldier, head in full-face view. Fig. 2. Soldier, thorax and petiole in side-view.
Fig. 3. Worker, head in full-face view. Fig. 4. Worker in side-view.

a sharp ledge which appears in side-view as a small tooth. Petiole relatively longer and lower, its peak rounded, not transversely marginate.

Specimens examined: 1 soldier and 2 workers from Brazil, Amazonas State, km 20 of Humaitá-Porto Velho Road, April 10, 1975, Virgílio Pereira da Silva, Daniel Z. Araujo & Aldo J. P. Dillon leg. (WWK n. 11926).

Variation. The worker specimens diagnosed above disagree from Mann's description of the type in having six mandibular teeth instead of five, and in lacking a longitudinal carina on frontal area. The first difference is probably due to an oversight by Mann, since the basal mandibular tooth is very small and offset, and hidden under the clypeus when the mandibles are firmly closed. At any rate, there is no doubt about the conspecificity between the types of *branneri* and the present specimens.

Discussion. The striking and curious dimorphism shown in head shape between soldiers and workers (see Figs. 1 and 3), the latter possessing a stalked necklike occiput — to my knowledge a unique feature for a *Camponotus* — the shape of the thorax in which the metanotum is dorsally exposed and projecting as a transverse welt both in soldiers and in workers, the transversely impressed and saddle-shaped basal face of propodeum, separate *branneri* from all other species-groups and/or subgenera of the Neotropical region.

It is hard to point out any closer relationship to any one of the other groups, and even more difficult to derive *branneri* from any one of them.

The soldier head, which is elongate, parallel-sided, and more heavily sculptured dorsally in front, together with the rather smooth integument of the remainder of the body, reminds one of the more orthodox members of subgenus *Pseudocolobopsis*, but the latter lack the standing hairs on scapes and legs, and their thorax is much more compact.

The impressed dorsal profile of thorax of *branneri* resembles superficially that of *Myrmosphincta*, but in the latter group the soldier head is not elongate-rectangular, the clypeus anteriorly not impressed, and the metanotum, when exposed dorsally, is deeply sunk in between the mesonotum and the propodeum, if not reduced to a mere transverse sulcus.

One could try to derive *branneri* from the larger, shinier and more slender members of the *Tanaemyrmex*-group, especially from those

which have workers with elongate heads and drawn-out yet not necklike occiput, but even these have as a rule bristly pilosity and their soldiers show a head shape completely different from that of *branneri*, *Pseudocolobopsis* and a few *Myrmaphaenus*.

Following Emery's logic in establishing avowedly artificial subgeneric cuts in order to handle with more ease the enormous wealth of species in *Camponotus*, *branneri* would certainly qualify for separate subgeneric rank. However, I prefer to leave it as an isolated, highly distinctive species with uncertain relationship to the already recognized subgenera.

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